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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,673	11/21/2003	Khosro Khakzadi	03-1862/L13.12-0251	1314

7590 01/12/2007
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EXAMINER

WIENER, ERIC A

ART UNIT	PAPER NUMBER
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2112

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/719,673

Applicant(s)

KHAKZADI ET AL.

Examiner

Eric A. Wiener

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/21/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/6/2004 and 1/31/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 24 are pending.
2. The IDS filed on 12/6/2004 and 1/31/2005 have been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose a sufficient description of any channels of which are to be connected. In addition, neither discloses a sufficient description of what a “room builder object” is. This lack of information in claim 17 prevents one skilled in the art from understanding the claim enough to perform the method.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 – 4, 7 – 13, and 18 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nahaboo et al. (US 5,974,253).

As per claim 1, Nahaboo discloses *a command processor on a computer system* (column 6, lines 16 – 18) *comprising*:

- *a graphical user interface for providing a graphical interface to the computer system* (Figure 2)
- *a command interpreter for interpreting commands from a user* (column 6, lines 50 – 56) *and for modifying the graphical user interface according to the interpreted commands* (column 6, lines 60 – 64)

As per claim 2, and taking into account the rejection of claim 1, Nahaboo further discloses that *the graphical user interface is modifiable by the user at run time* (column 6, lines 56 – 58).

As per claim 3, and taking into account the rejection of claim 1, Nahaboo further discloses that *the command interpreter interprets user commands to produce graphical objects within the graphical user interface* (column 7, line 55 – column 8, line 10).

As per claim 4, and taking into account the rejection of claim 3, Nahaboo further discloses that *the command interpreter interprets user commands to assign functionality to the graphical objects* (column 9, lines 39 – 42).

As per claim 7, and taking into account the rejection of claim 1, Nahaboo further discloses *a graphics engine tool for drawing contents of a database into the graphical user interface based on a user command* (column 3, lines 52 – 61).

As per claim 8, Nahaboo discloses *a method of providing a fully customizable graphical user interface* (column 6, lines 11 – 23) comprising:

- *upon execution of a command processor, loading a top level TCL command into a namespace* (column 3, lines 52 – 54 and column 6, lines 50 – 56)
- *building graphical objects* (column 7, line 55 – column 8, line 10) *according to TCL commands* (column 6, lines 53 – 56)
- *assigning functionality to the built graphical objects* (column 9, lines 39 – 42) *according to TCL commands* (column 6, lines 53 – 56)
- *displaying a user-interactive window containing the graphical objects according to TCL commands* (column 3, lines 34 – 36)

The examiner has interpreted the fact that Nahaboo discloses using an interpreted language (Abstract, lines 1 – 2) sufficiently discloses the use of the interpreted language Tool Command Language.

As per claim 9, and taking into account the rejection of claim 8, Nahaboo further discloses *performing functions based on user interactions with the graphical objects according to their assigned functionality* (column 10, lines 45 – 54).

As per claim 10, and taking into account the rejection of claim 8, Nahaboo further discloses that *the graphical objects are selected from a group consisting of windows, window panes* (column 4, lines 39 – 41), *buttons, and menus* (column 6, lines 4 – 5).

As per claim 11, Nahaboo substantially discloses the method of claim 8. In addition, Nahaboo further discloses *creating a TCL script and assigning the TCL script to one of the graphical objects* (column 11, lines 55 – 58). Nahaboo does not explicitly disclose the TCL script corresponds to a circuit design function. However, Nahaboo does disclose that *the purpose of this invention is to define an extremely flexible interface development tool that can be used regardless of the application* (column 1, lines 29 – 31). Therefore, Nahaboo's script could correspond to a circuit design function if the user defines it in such a way.

As per claim 12, Nahaboo and Dangelo substantially disclose the method of claim 11. In addition, Nahaboo further discloses that *one of the graphical objects is a button* (column 6, line 4).

As per claim 13, Nahaboo and Dangelo substantially disclose the method of claim 11. In addition, Nahaboo further discloses that *one of the graphical objects is an item within a pull-down menu* (column 6, line 5).

As per claim 18, and taking into account the rejection of claim 8, Nahaboo further discloses that *the steps of building and assigning comprises loading a user specified TCL command configuration script* (column 11, lines 55 – 58).

As per claim 19, Nahaboo discloses *a method of providing a graphical user interface having no hard coded objects () comprising:*

- *loading a top level TCL command into a namespace upon execution of a command processor* (column 3, lines 52 – 54 and column 6, lines 50 – 56)
- *providing a command interpreter for interpreting commands from a user* (column 6, lines 50 – 52)

- *assembling a graphical user interface based on interpreted commands from the user* (column 6, lines 53 – 59)
- *wherein all objects within the graphical user interface are user defined* (column 6, lines 53 – 59), and wherein the fact that the user can enter the ‘editing’ mode without entering the ‘execution’ mode means that said user can define all objects of the graphical user interface before execution, thus defining all objects of a graphical user interface having no hard coded objects

The examiner has interpreted the fact that Nahaboo discloses using an interpreted language (Abstract, lines 1 – 2) sufficiently discloses the use of the interpreted language Tool Command Language.

As per claim 20, and taking into account the rejection of claim 19, Nahaboo further discloses *changing the graphical user interface based on changing commands from the user* (column 6, lines 62 – 63) *and displaying a changed graphical user interface during operation based on the changing commands* (column 6, lines 56 – 59).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 – 6, 14 – 17, and 21 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nahaboo et al. (US 5,974,253) and Dangelo et al. (US 5,493,508).

As per claim 5, Nahaboo substantially discloses the command processor of claim 1. However, Nahaboo does not explicitly disclose a suite of integrated circuit tools, each design tool of the suite having a functionality corresponding to one or more steps in a design flow process of an integrated circuit.

On the other hand, in an analogous art, Dangelo discloses *a suite of integrated circuit tools, each design tool of the suite having a functionality corresponding to one or more steps in a design flow process of an integrated circuit* (column 1, lines 7 – 9, 38 – 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Dangelo into the command processor of Nahaboo to develop a command processor comprising a suite of integrated circuit design tools with a modifiable graphical user interface. The modification would have been obvious, because the nature of utilizing a graphical user interface in a circuit design process would allow for the specification and modification of the graphical user interface to produce a design (Dangelo, column 2, lines 62 – 65).

As per claim 6, Nahaboo and Dangelo substantially disclose the command processor of claim 5. In addition, Nahaboo further discloses that *the command processor loads each design tool into the graphical user interface based on user commands* (column 6, lines 50 – 52).

As per claim 14, Nahaboo substantially discloses the method of claim 8. However, Nahaboo does not explicitly disclose changing a look and feel of the graphical user interface during a design process.

On the other hand, in an analogous art, Dangelo discloses *changing a look and feel of the graphical user interface during a circuit design process* (column 2, lines 62 – 65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Dangelo into the method of Nahaboo to develop a method of providing a fully customizable graphical user interface for customizing during a circuit design process. The modification would have been obvious, because the nature of utilizing a graphical user interface in a circuit design process would allow for the modification of the graphical user interface to produce a design (Dangelo, column 2, lines 62 – 65).

As per claim 15, Nahaboo and Dangelo substantially disclose the method of claim 14. In addition, Nahaboo further discloses *creating new graphical objects* (column 7, line 55 – column 8, line 10) *using TCL commands* (column 6, lines 53 – 56) *and assigning functionality to the new graphical objects* (column 9, lines 39 – 42).

As per claim 16, Nahaboo and Dangelo substantially disclose the method of claim 14. In addition, Nahaboo further discloses:

- *loading a new top level TCL command into the namespace* (column 3, lines 52 – 54 and column 6, lines 50 – 56)
- *building graphical objects* (column 7, line 55 – column 8, line 10) *according to new top level TCL commands* (column 6, lines 53 – 56)
- *assigning functionality to the built graphical objects* (column 9, lines 39 – 42) *according to new TCL commands* (column 6, lines 53 – 56)
- *displaying the user-interactive window containing the graphical objects according to the new TCL commands* (column 3, lines 34 – 36)

The examiner has interpreted the fact that the interface can load the file of commands to reconstruct the interface in a purely dynamic manner to be sufficiently equivalent to being able to change a look and feel according to new commands and objects.

As per claim 17, and taking into account the rejection of claim 8, Nahaboo further discloses that *before the step of building, the method further comprises:*

- *creating a TCL interpreter object* (column 7, line 55 – column 8, line 10), where the examiner has interpreted a TCL interpreter object to be the object interpreted by the interpreter for building within the interface
- *creating room builder objects* (column 12, lines 43 – 45), where the examiner has interpreted a room builder object to be sufficiently equivalent to an object that depends upon variables defining space and geometry

Nahaboo does not explicitly disclose the method includes connecting input and output channels. However, in an analogous art, Dangelo discloses *connecting input and output channels* (column 6, lines 23 – 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Dangelo into the method of Nahaboo to develop a method of providing a fully customizable graphical user interface wherein input and out channels are connected. The modification would have been obvious, because the use of a graphical user interface in a circuit design process, whether or not said interface is customizable, would better facilitate the connection of input and output channels (Dangelo, column 2, lines 62 – column 3, line 13).

As per claim 21, Nahaboo substantially discloses the method of claim 19. Nahaboo does not explicitly disclose interfacing with a suite of integrated circuit design tools for producing an integrated circuit layout and associated netlist.

However, in an analogous art, Dangelo discloses *interfacing with a suite of integrated circuit design tools for producing an integrated circuit layout and associated netlist* (column 2, line 55 – column 3, line 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Dangelo into the method of Nahaboo to develop a method of providing a graphical user interface having no hard coded objects for interfacing with a suite of integrated circuit design tools. The modification would have been obvious, because the nature of utilizing a graphical user interface in a circuit design process would allow for the specification and modification of the graphical user interface to produce a design (Dangelo, column 2, lines 62 – 65). If the user has control over defining some aspects of an interface, it would be obvious that the user would have the ability to completely define all aspects of an interface for circuit design.

As per claim 22, Nahaboo and Dangelo substantially disclose the method of claim 21. In addition, Nahaboo further discloses *loading a design tool from the suite of design tools into the graphical user interface based on a user command* (column 8, lines 7 – 51).

As per claim 23, Nahaboo and Dangelo substantially disclose the method of claim 22. In addition, Nahaboo further discloses that *the user command is assigned to a graphical object* (column 9, lines 39 – 42).

As per claim 24, Dangelo discloses *an integrated circuit software design suite* (column 5, lines 21 – 26) *comprising:*

- *a command processor having a graphical user interface* (column 8, lines 47 – 67) *and a command interpreter* (column 5, lines 25 – 28) *for interpreting user commands* wherein the fact that the system processes user selections for graphically interfacing with elements is equivalent to having a processor for processing and interpreting commands
- *one or more design tools corresponding to processes within an integrated circuit design process* (column 8, lines 47 – 50)
- *wherein the one or more design tools operate under control of the command processor and within the graphical user interface* (column 8, lines 47 – 67)

Dangelo does not explicitly disclose that the graphical user interface is specified entirely by a user at runtime.

However, in an analogous art, Nahaboo discloses *a graphical user interface specified entirely by a user at runtime* (column 6, lines 56 – 64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Dangelo into the software design suite of Nahaboo to develop an integrated circuit software design suite comprising a graphical user interface specified entirely by a user at run time. The modification would have been obvious, because the nature of utilizing a graphical user interface in a circuit design process would allow for the specification and modification of the graphical user interface at runtime (Dangelo, column 2,

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lines 62 – 65). If the user is able to specify parts of the interface at runtime, it would be obvious that said user would have the ability to specify the entire interface at runtime.


9. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The cited documents represent the general state of the art.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Wiener whose telephone number is 571-270-1401. The examiner can normally be reached on Monday through Thursday from 9am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chameli Das, can be reached on 571-272-3696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eric Wiener
Patent Examiner
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